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SOUTHERN PINE BEETLE POST-SUPPRESSION EVALUATION FOR THE SABINE NATIONAL FOREST, Texas

by

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INTRODUCTION

A biological evaluation to determine the status of southern pine beetle (SPB), Dendroctonus frontalis Zimm., populations was conducted on the Yellowpine Ranger District, Sabine National Forest during July, 1982 (Nettleton et al. 1982). The beetle populations were at epidemic levels with most spots rapidly expanding and containing numerous trees with fresh attacks. A SPB suppression project was initiated for FY 82 and this report summarizes the project accomplishments.

METHODS

Targets

The overall volume of timber currently infested by SPB on the RD at the time of the July biological evaluation was estimated using data from the 10 ground checked spots. This volume figure was then used in the Southern Pine Beetle Economic Evaluation Program (SPBEEP) to determine targets for timber to be removed in order to meet the goals of the suppression project. The program also assigns a target for the volume of timber protected by the control efforts.

Volume Salvaged and Presuppression Flights

The volume salvaged is the amount of timber actually removed by the RD during the SPB suppression project. The figure was obtained from Yellowpine RD records. Presuppression flights were flown by RD personnel. FPM recommends that one flight per month be made during the summer months.

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RESULTS

Targets

Targets designated were 156,522 acres of presuppression flights (2 flights), 1,065 MBF of timber to be removed, and 733 MBF of timber to be protected (Nettleton et al. 1982).

Volume Salvaged

SPB suppression project salvage was 3,500 MBF of timber removed. This figure exceeded the targeted volume by 3.3 times.

Volume Protected

The volume protected was 5,084 MBF of timber. Again, this surpassed the projected volume of 733 MBF.

Presuppression Flights

There were two presuppression flights covering an estimated 156,522 acres.

DISCUSSION

SPB activity continued to escalate despite an aggressive control program conducted by district personnel. The number of infestations increased from 30 at the time of the July evaluation to 150 by the end of September. All spots were controlled by salvage removal.

Aerial surveillance in the form of presuppression flights has been adequate. The RD has two well-trained observers who do a good job of sketch mapping and locating the SPB infestations on the ground.

Project efficiency (volume salvaged/targeted volume to be salvaged) was high. This was primarily due to a five-fold increase in the number of SPB infestations from July to September and the RD's ability to sale prepare and salvage most of the spots.

Project effectiveness (percentage of treated SPB spots having breakouts) was only fair. Thirty percent of the treated infestations had additional timber losses due to SPB after salvage. This was mainly due to weak timber markets. The major sawmills in the area would only accept logs two days per week and this led to excessive delays between sale preparation and suppression. This enabled beetles to spread beyond the buffer strip. Additionally, wet weather caused salvage delays by reducing accessibility to infestations located in drainages.

District personnel are aware of these problems and are taking measures to reduce the number of breakouts. They have asked the operators to move the timber in the low lying areas as rapidly as possible, weather permitting, even if it means decking the logs near the road. They are also having salvage crews cut-and-leave the infested trees, during the summer months,

if they know there will be delays in moving the logs to the mill. Finally, RD personnel are making an effort to recheck the spots just prior to or during the actual salvage operations. If additional SPB infested trees are found outside the buffer strip, they are added to the sale at that time.

REFERENCES

Nettleton, W. A.; Overgaard, N. A.; Drummond, D. B. Biological evaluation of southern pine beetle on the Yellowpine Ranger District, Sabine National Forest. Rep. No. SA 82-2-14. Pineville, LA: U.S. Department of Agriculture, Forest Service, Forest Pest Management; 1982. 16 p.